What is claimed is

1. A positive electrode active material for battery, wherein,

in a positive electrode active material for battery comprising of electrolytic manganese dioxide,

said electrolytic manganese dioxide has a weight loss at 200°C to 400°C when said electrolytic manganese dioxide is heated of not less than 2.7 wt%.

2. The positive electrode active material for battery as recited in Claim 1, wherein the specific surface area of said electrolytic manganese dioxide is not more than 75 m^2/g.

3. The positive electrode active material for battery as recited in Claim 1 or 2, wherein the electric potential of said electrolytic manganese dioxide is 270 mV to 320 mV.

4. The positive electrode active material for battery as recited in any of Claim 1 to 3, wherein said electrolytic manganese dioxide is obtained by electrolysis with a solution of manganese sulphate and sulfuric acid as the electrolytic solution, at an electrolysis temperature of 85°C to 95°C, an electrolysis current density of 20 A/m^2 to 50 A/m^2, and a sulfuric acid concentration of 50 g/l to 100 g/l.

5. A method for preparing electrolytic manganese dioxide, wherein, in a method wherein electrolysis is carried out with a solution of manganese sulphate and sulfuric acid as the electrolytic solution to prepare electrolytic manganese dioxide,

electrolysis is carried out at an electrolysis temperature of 85°C to 95°C, an electrolysis current density of 20 A/m^2 to 50 A/m^2, and a sulfuric acid concentration of 50 g/l to 100 g/l.

6. The method for preparing electrolytic manganese dioxide as recited in Claim 5, wherein the obtained electrolytic manganese dioxide has a weight

loss at 200°C to 400°C when said electrolytic manganese dioxide is heated of not less than 2.7 wt%.

7. The method for preparing electrolytic manganese dioxide as recited in Claim 5 or 6, wherein the specific surface area of the obtained electrolytic manganese dioxide is not more than 75 m^2/g.

8. The method for preparing electrolytic manganese dioxide as recited in any of Claims 5 to 7, wherein the electric potential of the obtained electrolytic manganese dioxide is 270 mV to 320 mV.

9. A battery, wherein the positive electrode active material for battery as recited in any of Claims 1 to 4 is used.